

**Men's Behavior towards Women as a Function of Women's Costume Attire
(Cosplay):
An Experimental Investigation of Speed Dating at a Popular Culture
Convention**

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Abstract

With the surge of consumer interest in popular culture media, it is surprising that little research has been conducted into the conventions that celebrate these themes. Speed dating is a staple of these conventions. Attendees are encouraged to dress up or "cosplay" as their favorite characters from movies, television, or comic books. One of the activities at these conventions is speed dating, where many, if not most, of the speed daters are in cosplay. What attracts these individuals to one another? This study investigated whether a woman's attire will affect men's interest in her. We hypothesized that men are more attracted to women dressed in seductive rather than demure cosplay or in street clothes. The study included two female confederates wearing either seductive, demure, or casual attire at a real-world cosplay speed dating event with 48 single men participating. The results indicate that type of attire did not affect men's interest in the female confederates. Instead, men were more attracted to a female confederate positively engaged in their dyadic interaction regardless of her attire. This suggests that attire is far from being the major determinant of men's interest in women.

Keywords: cosplay, speed dating, interpersonal attraction

1. Introduction

Within the last decade, those who enjoy all things geek have noticed a strange phenomenon: the mainstream popular culture now reverberates with significant staples of geekiness. Cosplay is one such staple that has gained mainstream attention. Cosplay is derived from the words "costume" and "play," and "is a performance art in which the participant masquerades as a character from a film, television series, video game, or comic book".¹ While still garnering social stigma from some, it is a widely recognized niche of the geek subculture and an expected aspect of ACG (animation, comics, games) conventions.

2. Background

2.1. ACG conventions

Attendance at ACG (animation, comics, and games) conventions across America is skyrocketing. The most popular ACG convention in the United States is the San Diego Comic-Con International. When first established in 1970, attendance was only 300.² In 2010, attendance soared to the allowable limit of 130,000 attendees.³ Across the country, similar trends exist. In 2014, New York Comic Con saw 151,000 guests.⁴ Chicago Comic and Entertainment Expo recently broke its own record for its 2015 event and hosted around 70,000 attendees.⁵ It is apparent that the trend of escalating attendance at conventions is indicative of the popularity of the geek culture in mainstream entertainment.

One of the activities at these ACG conventions is speed dating, enabling those who enjoy popular culture and cosplaying to find like-minded potential romantic partners. Unlike speed dating events in other venues, many, if not most, of the speed daters are in cosplay. What attracts these individuals to one another? Does the type of costume matter? We are not aware of any psychological studies on speed dating while cosplaying.

2.2. Attire

The reason we chose to focus on attire as a determinant of attraction to a potential romantic partner is that our attitudes towards others can be affected by their clothing. Of relevance is an experiment in which attitudes toward an individual based solely on attire were measured.⁶ In this study, a sample of men and women were randomly separated into two groups. Each group filled out the Likelihood to Sexually Harass (LSH) scale.⁷ One group was shown a picture of a woman in a provocative dress, while the other group was shown a picture of the same woman but in a conservative dress. At this time, they read about an instance of sexual harassment and completed the Punishment Scale (a scale ranging from “No Punishment” to five other options of active punishment). The participants then completed the Gender-Career IAT.⁸ This study found significant discrepancy among men and their perceptions of the same woman in two different styles of attire. Men approved more of sexual harassment if the woman was dressed provocatively than conservatively. Women on the other hand were more sensitive to sexual harassment and were more prone to seek punishment than men, regardless of how the woman was dressed. This finding of women rating male transgressions against females more severely has been replicated in other studies.⁹ Another study exposed men to video clips of women as sexual objects or in professional roles (varying their attire) and found that men were more likely to engage in sexually harassing behavior when exposed to sexually objectified rather than professional women.¹⁰

In another study that took place over the course of several days and different bars, researchers observed how much time passed before a man approached a woman based on her attire.¹¹ It was found that men approached the woman after initial eye contact much sooner when she wore more suggestive clothing, as opposed to conservative clothing. In addition, men’s belief that they could secure a date with said woman and the predicted likelihood that they would have sex on the first date were positively correlated with how seductively dressed the confederate appeared.¹¹

3. Goals of this research

Thus, seductive attire in women seems to be interpreted by men as sexual availability and enhances their attraction to a woman. Thus, our perception of others can change simply by the alteration of their wardrobe. We thus hypothesized that men would show more interest in women in seductive rather than demure or casual cosplay.

The present study observed the interactions of men with female confederates who either dressed in provocative cosplay, conservative cosplay, or inconspicuous casual clothing at a real-world ACG convention speed dating session. This method was chosen because most research on speed dating has consisted primarily of studies that artificially measure judgments based on hypothetical scenarios in laboratory situations. We wished to examine the role that women’s attire serves to gain the interest of men during speed dating at ACG conventions, where cosplay is considered the norm and experimental studies have been largely absent.

4. Method

4.1. Ethical considerations

This study was approved by the authors' institutional review board. We managed to secure permission to conduct our research from the ACG convention at a venue in the Midwestern portion of the US. Furthermore, we received permission from the speed dating host to come into his sessions to video and audio record speed daters. Of course we also obtained permission from participants. Prior to entering the speed dating session participants filled out an informed consent form, which explained that they would be video and audio recorded. We did not record individuals who did not give their express permission to us to do so. All participants were fully debriefed regarding the purpose of the study and the use of deception using the mode of contact they preferred (i.e., email, phone call, or postal mail).

4.2. Participants

Participants were 48 males, aged 18 and older. The mean age of these participants was 27.5 years ($SD = 6.4$). 2.1% of these men were African American, 2.1 % Asian, 8.3% Biracial 14.6%, Hispanic, 2.1% Native American, 64.6% White, and 6.3% did not indicate their race/ethnicity. All male speed daters who participated identified as heterosexual.

The participants who speed dated hoped to form romantic relationships and were not compensated. Men had to pay \$30 to participate in the speed dating sessions (per convention policy). Thus, despite speed dating's propensity to be used for short-term mating strategies that value physical attractiveness, participants at this venue should have been motivated to seek characteristics in a partner that foster a long-term relationship.¹²

4.3. Materials

Participants filled out an informed consent form, a Video Games Survey, and provided demographic information. The Video Games Survey consisted of five items measuring participants' preferences towards video game play. The results for this survey are available upon request and not germane to this paper.

At the conclusion of each session, participants were instructed to write down their contact information on sheets of paper that corresponded to a specific speed dater whom they would like to see again. We kept our confederates' speed dating contact sheets and made them our main dependent variable, measuring genuine interest in whether or not a participant liked a confederate enough to want to see her again outside of the speed dating venue.

Each of the two confederates wore either a seductive costume, a demure costume, or inconspicuous casual attire for a session, changing her attire for each session (see Figure 1). The seductive costume consisted of a brown corset with matching shrug, black leggings, and matching boots. A fair amount of cleavage was exposed as well as the entire length of the confederate's arms. The demure costume was a brown robe, easily identified as a costume based on design, and covered all of the confederate's body except for her face and hands. Inconspicuous casual attire consisted of skinny jeans, a black unisex t-shirt, and plain shoes.



Figure 1. Photos of confederates in seductive, demure, and casual attire. Confederate 1 was a slender brunette (second photo), whereas Confederate 2 was a more voluptuous blonde (first and third photos).

Three Samsung F90 camcorders were used to record the speed date sessions. Three separate iGearPro digital audio recorders each equipped with an Olympus ME-51S stereo microphone were also utilized. Despite these efforts, audio clarity was sorely lacking given the ambient noise level from the many simultaneously on-going conversations. Thus, the audio material was not analyzed.

The video recorded interactions between participants and confederates were coded for analysis by seven research assistants, with each video interaction coded by at least two assistants. Disagreements were resolved by additional coders. Coders rated participants' eye contact, leaning in, smiling, laughing, fidgeting, and shifting. Additional measures such as the coder's guess on whether or not the participant wanted to see the confederate again were coded both in the binary affirmative or negative, as well as on a 7-point Likert scale. Confederates were mostly hidden from coders' view as the video cameras were focused solely on the participants.

4.4. Procedure

Speed dating consisted of short "dates" that lasted for approximately three minutes during which participants talked to the confederates as well as other women to try to make romantic connections. Using a within-subjects design, each participant interacted with both female confederates, each wearing one of three attires (demure, seductive, casual). A third confederate was unable to attend the conference at the last minute due to a family emergency. Thus, each participant was exposed to two confederates, each in a different attire.

Participants were free to attend multiple sessions, but data from subsequent sessions were not included in the analyses because participants likely realized our deception during a second session. The great majority of participants only attended a single session. In each speed dating session, the confederates wore a different attire. Thus, both confederates wore all three attires at different times, but each participant saw a particular confederate in only one attire, and confederates never wore the same attire in the same session.

The confederates had been coached prior to the sessions to act cordial and friendly but restrained with measured dialogue. A backstory was fabricated so the confederates would portray themselves as practically identical to one another, save for minor details that would not affect the confederates' credibility. The confederates' actions were standardized as the goal was to assess change in men's behavior based on what a confederate was wearing.

The video cameras were set up prior to participants' arrival, with assistants operating the cameras and ensuring accurate participant observation. The audio recorders were strategically hidden in the confederates' clothing and manipulated by the confederates themselves.

When the participants arrived and waited to enter the room designated for the speed dating, they were prompted to read and sign the informed consent form, filled out the Video Game Survey, and provided demographic information. When participants entered the room they were given their personal speed dating numbers. All women were seated throughout the entire duration of the event and one man at a time sat across from each woman until it was time for the man to rotate to the next woman. Each participant interacted with every female date, including both confederates. The participants also interacted and dated 40-50 women not associated with the study. For each session of speed dating, each confederate wore one of the three different costumes, wearing each costume at least once. Data were collected from five speed dating sessions.

5. Results

Speed dating results are based on 48 men who had interacted with the confederates in the speed dating sessions. We analyzed the effects of attire and confederate on participants' likelihood to want to meet the confederates in the future. Confederate and attire are within-subjects variables since each participant met both confederates in different attire. This is a complex statistical design that cannot be handled by a regular repeated measures analysis because the dependent variable, whether a participant wants to meet a confederate, is binary. This design was analyzed using SPSS's Generalized Estimating Equations function. The results are reported as Wald χ^2 .

Our hypothesis was not confirmed as the attire of the confederates did not significantly affect whether they were selected by participants, $\chi^2(2) = 1.51, p = .47$. However, there was a significant confederate effect, $\chi^2(1) = 11.59, p = .001$. Confederate 1 was selected by 69% of participants, whereas Confederate 2 was selected by only 28% (see Table 1). The interaction between confederate and attire was not significant, $\chi^2(2) < 1$.

Table 1. Likelihood of a confederate being selected for future contact as a function of her attire

	Attire			Total
	Casual	Demure	Seductive	
Confederate 1	0.65 ^b	0.71 ^a	0.73 ^a	0.69
Confederate 2	0.17 ^b	0.3 ^a	0.35 ^a	0.28
Total	0.47	0.54	0.52	

^a denotes $p < .05$; ^b denotes $p < .001$ in a column

We had anticipated that participants' behaviors during the interaction would give us clues to the level of interest in the confederates. We coded the extent of eye contact, leaning in, smiling, laughing, fidgeting, and shifting demonstrated by the male participants as they interacted with the confederates. A logistic regression was run predicting whether a participant wanted to meet with a confederate in the future using behavior he exhibited on the video recordings as a predictor. Surprisingly, none of the behaviors coded on the basis of the video recordings of the speed dates predicted whether a participant ultimately selected a confederate as someone he would like to contact in the future, all $\chi^2(1) > 2.13, p > .14$. Thus, we were unable to predict men's interest in the confederates from the observation of nonverbal communication that was 2 to 5 minutes in length.

6. Discussion

Our hypothesis that men's interest in confederates would be affected by the confederates' attire was not supported. Attire did not affect whether participants selected a confederate. However, there was a significant confederate effect revealing that Confederate 1 was much more popular than Confederate 2 (see Table 1). Clearly, neither confederate 1's popularity nor Confederate 2's lack of popularity were a function of attire. Furthermore, there was no significant statistical interaction between attire and confederate. Confederate 1 was more popular regardless of her attire and similarly, Confederate 2 was quite unpopular regardless of attire. At least in the setting of cosplay speed dating, attire does not appear to be a major factor in attracting men. Instead, confederate characteristics are important.

Since attire was the only independent variable systematically varied, we can only speculate as to what may have caused Confederate 1's high and Confederate 2's low appeal. It was obvious to a casual observer (and in fact, there were remarks to that effect) that Confederate 2 smiled less and was less engaged than Confederate 1 despite our instructions to the confederates to be cordial and friendly. This may have created a situation where Confederate 2 had a negative affective presence. Eisenkraft and Elfenbein¹² coined the term affective presence to refer to the emotions that one evokes in others. If talking with someone elicits feelings of happiness, we most likely would talk to that person again because the person is associated with positive feelings.¹³ Thus, Eisenkraft and Elfenbein found that affective presence during speed dating was positively correlated with a date wanting to see her or his speed dating partner again.¹² Luo and Zhang¹⁴ also found that men preferred women they speed dated who are "extroverted and agreeable", as opposed to "grumpy". We speculate that this difference in affective presence drove our confederate main effect.

However, we note that Confederate 2 also differed in body type and attractiveness from Confederate 1. Confederate 1 was slender, whereas Confederate 2 was more voluptuous and overweight. One study pertaining to the self-report of sexual habits via survey found that men who preferred women with slimmer waistlines enjoyed greater sexual satisfaction.¹⁵ It was concluded that this was likely due to the propensity that most men find slimmer women to be more sexually appealing.¹⁴ Thus, it cannot be ascertained whether Confederate 2's less positive affective presence or her lower physical appeal were responsible for her lower popularity. However, we note that the demure outfit obscured physique with the exception of hands and face, thus limiting exposure to many aspects of physical appearance. Even when wearing this figure-concealing demure outfit Confederate 2 was less popular (30% of participants were interested in her) than Confederate 1 (71% of participants were interested in her). Thus, men's attraction to Confederate 1 may have had less to do with her slimmer figure than her positive affective presence. But clearly, wearing a seductive attire is not the most critical component affecting men's attraction to a woman.

Another surprising finding was that our coding of participants' behavior towards the confederates did not predict their interest in the confederates. One might expect participants' interest to be revealed by non-verbal behavior such as smiling or leaning closer to the confederate, but this was not the case.

7. Limitations and future directions

We note that our results are hampered by low statistical power as we would have ideally included more participants. However, this factor was beyond our control at this particular venue. Not all men who speed dated wished to be video and audio recorded. Another problem was that a third confederate was unable to attend the conference due to a family emergency. Unfortunately, this reduced our number of observations by one third.

In hindsight we should have video recorded our female confederates as well as the male participants. We had reasoned that the behavior of interest was the male participants', so we focused our cameras on them. In addition, we did not want our coders of the video recordings to possibly be biased in their coding by seeing the attire of the confederates. However, this meant that we were unable to code if the two female confederates differed in their affective presence or behavior towards the male participants, which could have potentially explained why one confederate was so much preferred over the other. Anecdotal reports from observers and individuals staffing the cameras did note differences in confederates' affective presence.

Another limitation was our inability to code the verbal interaction due to the ambient noise of many simultaneous conversations happening in a small room. One clear strength of our study is its realism, using real speed daters at a real ACG conference. But this realism had its price. Some of the study's limitations are due to the fact that we were in a real-world speed dating situation, lacking control over the logistics.

8. Conclusions

We set forth in this study to determine the effect of a woman's attire on her popularity among male speed daters. Attire had practically *no effect*. One of the confederates was popular regardless of what she wore, the other one was relatively unpopular, again regardless of her attire. Future research will have to ascertain what characteristics of a confederate are particularly appealing. Is it an outgoing, bubbly personality or physical attractiveness? Literature presented earlier on affective presence argues that it is how one feels in response to another, whereas another implies that thinness matters when it comes to sexual attraction. Possibly both of these factors affected our results.

Research on attire and how it colors our perceptions about women led us to hypothesize that men would perceive a woman wearing seductive clothing as easy to get to go on a first date with them and agree to engage in sexual behavior. If our participants believed this, it is not apparent from the data collected. Interest, or lack thereof, in Confederates 1 and 2 remained consistent regardless of what they wore.

These results do shine an optimistic light on men that participate in speed dating at ACG conventions. Instead of automatically preferring a woman who wore more revealing clothes, it appears that other factors, such as affective presence, were more important in deciding whether or not to share their contact information with their dates. A seductive outfit is no guarantee for appeal to men. Similarly, a monk-like outfit on a cheerful woman, like Confederate 1, can be quite appealing. Clearly our results are not the final word on the issue of men's attraction to women. Our null finding of the lack of importance of attire needs to be replicated on a larger sample and the physical attractiveness and affective presence of confederates controlled. Our hypothesis was not confirmed, but this is actually cause for celebration. Women may not be objectified all the time, at least not at speed dating events at a popular culture convention.

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10. References

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- 1 Gn, J. (2011). Queer simulation: the practice, performance and pleasure of cosplay. *Continuum: Journal of Media & Cultural Studies*, 25(4), 583-594. doi:10.1080/1030431232011.582937
 - 2 Comic-Con Souvenir Book No. 40 (2009).
 - 3 Weisberg, L. (November 22, 2010). Comic-Con registration crashes for second time. *San Diego Union-Tribune*. Retrieved from <http://www.utsandiego.com/news/2010/nov/22/comic-con-registration-crashes-for-second-time/>
 - 4 Lovett, J. (2014 October 13). New York Comic Con was attended by 151,000 people, surpasses San Diego. *ComicBook.com*. Retrieved from <http://comicbook.com/2014/10/13/new-york-comic-con-was-attended-by-151-000-people-surpasses-san-/>
 - 5 Griep, M. (2015 April 27). Attendance up at C2E2. *ICv2*. Retrieved from <http://icv2.com/articles/news/view/31441/attendance-up-c2e2>
 - 6 Weber, K.P., Bauer, L.M., & Martinez, T.E. (2012). The influence of sex, gender bias, and dress style on attitudes toward sexual harassment. *Psi Chi Journal of Psychological Research*, 17(3), 106-114.
 - 7 Pryor, J.B. (1987). Sexual harassment proclivities in men. *Sex Roles*, 17, 269-290. doi:10.1007/bf00288453

- 8 Greenwald, A.G., Poehlman, T.A., Uhlmann, E.L., & Banaji, M.R. (2009). Understanding and using the implicit association test: III. Meta-analysis of predictive validity. *Journal of Personality and Social Psychology*, 97, 17-41. doi:10.1037/a0015575.
- 9 Bursik, K. & Geftter, J. (2011). Still stable after all these years: perceptions of sexual harassment in academic contexts. *The Journal of Social Psychology*, 151(3), 331-349.
- 10 Galdi, S., Maass, A., & Cadinu, M. (2014). Objectifying media: Their effect on gender role norms and sexual harassment of women. *Psychology of Women Quarterly*, 38(3), 398-413. DOI: 10.1177/0361684313515185
- 11 Gueguen, N. (2011). The effect of women's suggestive clothing on men's behavior and judgment: a field study. *Psychological Reports*, 109(2), 635-638.
- 12 Eisenkraft, N., & Elfenbein, H.A. (2010). The way you make me feel: evidence for individual differences in affective presence. *Psychological Science*, 21(4), 505-510.
- 13 Berrios, R., Totterdell, P., & Niven, K. (2015). Why do you make us feel good? Correlates and interpersonal consequences of affective presence in speed-dating. *European Journal of Personality*, 29, 72-82. doi: 10.1002/per.1944
- 14 Luo, S. & Zhang, G. (2009). What leads to romantic attraction: similarity, reciprocity, security, or beauty? Evidence from a speed-dating study. *Journal of Personality*, 77:4 (933-964) doi:10.1111/j.1467-6494.2009.00570.x
- 15 Brody, S. & Weiss, P. (2013). Slimmer women's waist is associated with better erectile function in men independent of age. *Archives of Sexual Behavior*, 42:1191-1198. DOI: 10.1007/s10508-012-0058-9